

To: Chairman and Members  
2007 Montana Legislature  
Senate Judiciary Committee

From: Regional Trauma Centers of Billings, Montana  
▪ St. Vincent Healthcare  
▪ Billings Clinic  
Emergency Nurses Association/Montana Chapter

Thank you for allowing us to present our testimony and opinions in support of Senate Bill 300, which would create a primary seat belt law for the state of Montana. Our position has 4 salient points:

- Deaths and disabilities due to injuries sustained by occupants who are in motor vehicle crashes and are not wearing seat belts are a public health crisis for Montana. Montana is second only to Wyoming in the incidence of traumatic brain injury with the majority of the injuries sustained in motor vehicle crashes. Montana had the highest fatality rate in the nation due to motor vehicle crashes in 2005. Trauma remains the number one killer of Montanans between the ages of 4 and 34 and motor vehicle crashes are the most frequent mechanism of injury.
- Montanans who aren't wearing safety belts when they are in a motor vehicle crash are injured more severely, are more likely to require admission to the hospital and subsequent rehabilitation.
- The cost of unbelted motor vehicle crash trauma is born by all Montanans, with more people added annually to the Medicaid roles, more people on disability, more indirect hospital costs from unreimbursed care, and more financial shortfalls for hospitals providing trauma care.
- Driving is a privilege, not a right. The rights of Montanans are those things to which they are entitled simply as a process of being state and US citizens and human beings. The exercise of a true right does not infringe on the rights of others. Driving requires education, testing, insurance, and adherence to safe operating rules as a method of reducing the risk of injury to all those traveling the road. Seat belts are as important to safe operation of a vehicle as are obeying the rules of the road. A primary seat belt law supports and consequences Montana's mandatory seat belt law, reinforcing the behavior change that is needed for this and subsequent generations of Montanans to reduce the incidence of motor vehicle crash death and disability.

Dr. Dennis Maier MD  
Trauma Medical Director  
St. Vincent Healthcare

Dr. Robert Hurd MD  
Trauma Medical Director  
Billings Clinic

Dr. Jim Bentler MD  
Emergency Physician  
St. Vincent Healthcare

Penny Clifton RN  
Trauma Program Coord.  
St. Vincent Healthcare

# Injury and Death in Motor Vehicle Crashes and Financial Impact of the lack of Vehicle Restraint Usage on the State of Montana

*Prepared for the Senate Judiciary Committee  
2007 Montana State Legislature*

\*\*\*\*\*

## Data Sources

- 2005 Montana State Trauma Data Bank: a compilation of trauma registry data submitted by hospitals throughout Montana
- Spinal Cord Information Network
- CODES Project: Yellowstone County
- NHTSA: National Highway Traffic Safety Administration
- Trauma Registry/St. Vincent Healthcare/Billings, MT
- Trauma Registry/Billings Clinic/Billings MT

### *2005 Montana State Trauma Data Bank*

- 251 deaths in motor vehicle crashes; 73% or 152 were unrestrained This was the worst fatality rate in the nation in 2005
- 71% of those injured were unrestrained
- 23 motor vehicle crash victims with spinal cord injuries/61% were unrestrained
- Trauma remains the leading cause of death for Montanans between the ages of 4 and 34
  - The primary mechanism of injury is motor vehicle crashes

### *Spinal Cord Information Network*

- Lifetime costs of medical care for
  - Quadriplegic = \$2,924,513.00 (\$741,425.00 in 1<sup>st</sup> year)
  - Paraplegic = \$977,142.00

### *CODES project/Yellowstone County 2003*

- Average hospital charges for victims admitted after motor vehicle crash
  - With seat belt = \$20,709.00
  - Without belt = \$48,692.00
  - Unbelted persons 7.3 times more likely to require hospital admission
- Estimated lives that could have been saved by belts = 13
- Estimated number of prevented hospitalizations = 142 at a savings of \$7,000,000

### ***National Highway Traffic Safety Administration (NHTSA)***

- Seat belt use (lap and shoulder) reduces the risk of death by 45% and the risk of moderate to severe injury by 50%
- Primary seat belt laws exist in 25 states
- Observed seat belt use in states with primary laws = 85%
- Observed seat belt use in states without primary laws = 75%
- Montana's observed seat belt use = 79%
- Montana's annual cost due to motor vehicle crashes = \$621 million.
- Enacting a primary seatbelt law typically increases observed seat belt use by 10-11 percentage points over two (2) years
- Increasing Montana's seat belt use to 90% would save 20-30 lives and an estimated \$113.6 million a year.

### ***Trauma Registry St. Vincent Healthcare***

- 2005 Motor vehicle crash victims hospitalized
  - Unbelted = 97
    - 6 died; 25 discharged to rehab or skilled nursing facility
  - Belted = 50
    - 1 died; 8 discharged to rehab or skilled nursing facility
- Unbelted patients were over twice as likely to be uninsured and required Medicaid application during their stay
- Reimbursement deficit in 2005 for care provided to unbelted victims
  - \$2,228,657.00 (\$23,000 per patient)

### ***Trauma Registry Billings Clinic***

- Hospital days for belted patients = avg 4 days per pt
- Hospital days for unbelted patients = avg 8 days per pt

## Testimony on Senate Bill 300

### LC 2115

#### *Why seat belts reduce injury*

Mr. Chairman, members of the Senate Judiciary Committee, I am Dr. Dennis Maier, MD  
I am a Surgeon at St. Vincent Healthcare, Billings, MT

On a daily basis I am involved in the care of Montanans injured in motor vehicle crashes. I have seen the visible external damage to their bodies and the internal damage during surgery. I can, therefore, compare the depth and breadth of injury to the less severe injuries sustained by Montanans who were wearing seat belts.

Trauma is defined as the transfer of energy from the environment to the human body and this energy transfer creates death and damage. Seat belts absorb some of the energy that would otherwise be transferred to the patients tissues by the forces of the accident and allow the patient to ride down the impact. In addition, a significant portion of the injured people I admit are ejected from their vehicle because they weren't wearing their seat belts. The risk of death increases 4 fold during ejection. Wearing a seat belt significantly reduces the likelihood that the occupant's body will leave the car and significantly reduces the amount of destructive energy absorbed by the occupants body.

My patients who didn't have their seat belts on have more numerous and more severe injuries to more parts of their bodies. They require the services of many more specialists. They are in the hospital twice as long. If they survive, they are more likely to be unable to return to work for a significant amount of time due to the lengthy healing process.

I firmly believe that if Montanans believed they would could be stopped for not wearing a belt, and as a result wore their belts while in their vehicles, that the number of killed, or severely injured Montanans would decrease. I strongly urge this Committee to consider the greater good achieved by reinforcing to Montanans the importance of protecting themselves from harm with belts by passing a primary seat belt law.

**Testimony on Senate Bill 300**  
**LC 2115**

*Financial impact of lack of seat belt use*

Mr Chairman, Members of the Senate Judiciary Committee, I am  
Dr. Dennis Maier, MD of St. Vincent Healthcare, Billings, MT

At St. Vincent Healthcare, we compiled the records of all the motor vehicle crash patients in a given year and separated them into two groups: Those who were wearing seat belts and those who were not. We had always been aware that the unbelted occupants were injured more severely and died more often, but we were concerned with other less obvious differences between the two groups. While our ultimate goal is an improvement in the health and well being of all Montanans by having them safer while on our roads, as servants of the community, we must also be mindful that our ability to provide care in general hinges on our own financial stability.

We understand that all of the 2006 legislators are concerned with the costs of health care and the number of uninsured Montanans. We understand and support the desire of this legislature to carry on a tradition of fiscal responsibility and awareness. Therefore, we think it is essential that you know that failure to wear seat belts in Montana constitutes a significant financial burden for Montana.

We had twice as many unbelted injured patients as we did belted patients and a majority of them had no health insurance. The unbelted patients costs are higher due to the extent of their injuries. All uninsured injured patients at our facility are assisted, while in the hospital, to apply for Medicaid. In our review of all the costs and revenues for these patients in the year studied, we found a deficit of just over 2 million dollars in reimbursement. The costs of providing the depth and length of care these patients required surpassed the limitations of the third party payors. Our concern is that the failure to wear seat belts burdens the state Medicaid system and compromises our ability to grow to meet the needs of our growing communities and region.

There are also costs that are harder to quantify but are easily imagined. Lost wages to the injured person for an unknown amount of time, and the loss of the taxes they would pay. This extends also to family members who may have to modify their own employment to provide acute and chronic care. Many of these injuries result in long term disabilities with ongoing medical expenses.

As you consider the role of seat belts in the prevention of death and disability in Montana, please also consider its financial impact. In so many ways, the occupant isn't the only one injured in the crash.

## **Testimony on Senate Bill 300**

### **LC 2115**

#### *Seat belts as injury prevention*

Mr. Chairman, my name is Dr Jim Bentler MD. I am an Emergency Physician at St. Vincent Healthcare, Billings, MT. I would (also) like to go on record in support of Senate Bill 300.

As a medical professional, I am daily involved in the care of acutely ill or acutely injured Montanans. A significant portion of my training was in the identification of risk factors for disease. The prevention of illness, injury and complication is a large part of the care I deliver today. That is why it is so alarming to me to see the ongoing death, disability, financial burden and family disruption brought on by the injuries sustained by vehicle occupants who fail to wear seat belts. I see trauma, such as motor vehicle crashes, as a disease. Like a disease, it has known prevention strategies, known causes, and accepted treatments. Like a disease, it is contagious, in that unsafe behaviors can be role modeled by adults for children. And like a disease, it is a family problem in that all members lives are forever altered either by the debt, the care of the injured, or the loss of them. Montana led the nation in deaths due to motor vehicle crashes in 2005. But this is a disease that we can fight.

We are all familiar with childhood immunizations as a method for preventing the outbreak of disease. Let me quote Former Transportation Secretary Norman Mineta who said, in 2005, "We are in the midst of a national epidemic. If this many people were to die from any one disease in a single year, Americans would demand a vaccine. The irony is that we already have the best vaccine available to reduce the death toll on our highways: safety belts."

Montana has many laws concerning the safe operation of a vehicle and it has had a mandatory seat belt law, as you know, since 1987. It is my opinion that the wearing of a seat belt is as important a part of the prevention of death or injury related to vehicle operation as is having functional tail lights

and obeying traffic signals. I would ask that you pass this bill in order that the wearing of seat belts be given the same importance as other safe operating requirements. For the prevention of the spread of death and disability due to the disease that is trauma.

**Testimony on Senate Bill 300**  
**LC 2115**

*Seat belts as an infringement of "rights"*

Mr. Chairman, Members of the Senate Judiciary Committee, I am  
Penny Clifton, RN, Trauma Coordinator for St. Vincent Healthcare  
Billings, MT

In 1972, the US Supreme court heard a Massachusetts case wherein the right of an occupant to refuse to wear a safety restraint while operating a vehicle was discussed. I would like to quote an opinion of one of the Judges in that case:

*"From the moment of injury, society picks the person up off the highway, delivers him to a municipal hospital and municipal doctors, provides him with unemployment compensation if, after recovery, he cannot replace his lost job, and if the injury causes permanent disability, may assume the responsibility for his and his family's subsistence. We do not understand a state of mind that permits the plaintiff to think only he himself is concerned."*

We recall the case of a 15 year old girl we cared for. She was not wearing her seat belt when the family vehicle was rolled. She was ejected from her position in the middle of the back seat. She suffered permanently disabling brain trauma and orthopedic injuries. Her costs exceeded \$250,000 prior to going to rehabilitation and her family did not have health insurance. The saddest fact of her case, however, was that the coroner determined that the impact of her mobile unbelted body killed her younger brother, seated next to her.

All traffic laws impose some degree of control over individuals by requiring actions that, it is assumed, persons may not do voluntarily. These laws are in place because the operating of a multi-thousand pound moving metal vehicle full of flammable liquid and carrying fragile human cargo is understood to be dangerous. Education must be taken and testing done to confirm the ability to drive because driving is an earned privilege, not a right. Were driving a right, and the safe operation of the vehicle assumed, then no tests would need to be passed to gain it.

Vehicle operators and occupants in general acknowledge that driving at night without headlamps, or failing to yield or obey stops could result in serious harm. There are also some who will say that refusing to wear the seat belt found in all vehicles since the early 1960's is their right because only they run the risk of being hurt. The above example illustrates only one of the reasons why that belief is not based in the reality of crash dynamics and trauma in general. Human beings are hurt less when they are wearing a seat belt in a crash because the belt absorbs some of the crash energy, rather than the body.

Smokers also used a similar argument to oppose smoking bans, but many legislatures in many states and many cities have banned smoking in public areas in realization that the exercise of the smoker's perceived right actually infringed on the right of others. Airlines installed smoke detectors in their bathrooms and it is a felony to tamper with them or smoke. So there is an awareness in the public that some actions affect more than just the individual.

As has been or will be described, the financial burden for the high and often chronic costs and lost incomes associated with injuries from failing to wear a belt are born by more than just the injured person as well. In that regard as well, the exercise of the perceived right to not wear a belt infringes on the rights of others.

There is also, to my knowledge, no evidence from states with primary seat belt laws of an increase in complaints of harassment by law enforcement or racial profiling in traffic stops resulted from the primary law.

We acknowledge that there are farmer/ranchers who drive slowly along checking fencelines and feeding, for example, on their own property as well as mail carriers who stop frequently and we understand that exceptions may need to be made in the law with respect to these unusual or private circumstances.

But, by and large, it is a privilege to drive and that privilege is earned by safe driving practices. Wearing a seat belt and requiring occupants and children to do so as well, is part of being a safe driver and should be reinforced by this legislature by passing Senate Bill 300. I strongly encourage you to do so.

**Testimony on Senate Bill 300**  
**LC 2115**

*Primary Seat belt laws as creating a risk for discrimination or racial profiling*

Mr. Chairman, Members of the Senate Judiciary Committee, I am Penny Clifton, a registered nurse and Trauma Coordinator for St. Vincent Healthcare in Billings. I would like to offer testimony that addresses concerns related to racial or ethnic profiling or discriminatory citations related to primary seat belt laws.

There are, as of January 2006, 25 states as well as the District of Columbia who have enacted primary seat belt laws. In response to concerns that Hispanics or African Americans would be unfairly selected by law enforcement, the National Organization of Black Law Enforcement Executives, the Congressional Black Caucus, both the Conferences of Black Mayors and State Legislators as well as the Hispanic youth organization ASPIRA, have all expressed strong support for primary laws that increase safety belt use as they have identified motor vehicle safety as an urgent public health issue amongst their constituents.

In Montana, Native Americans make up 6.5% of our population, based on the US Census, which is greater than all other non-Caucasian ethnic groups in Montana combined. This, then, could be a group that might be concerned about being targeted by seat belt laws.

In a 2005 report from the National Highway Traffic and Safety Administration (NHTSA), data was presented from an observational study of seat belt use on 16 Native American Reservations. In summary, it was found that seat belt use on 9 reservations with primary seat belt laws while still below the national average, was markedly above other reservations at an average of 69%. On reservations with secondary belt laws, observed belt use was 53% on average. Of note is that the reservations that make up the Northern Plains group, in this study, which includes Montana, had the 5 lowest scores for observed belt use, averaging less than 27%, nearly identical to the average on reservations with no seat belt laws. Reservations in states with primary seat belt laws have been shown to be more likely

to put into place similar laws for the reservations. Even in Arizona, where there is a new primary seat belt law, 2 of the 6 reservations have already put a similar law in place and the other 4 will do so shortly.

The low percentage of belt use for the Northern Plains tribes concerns us in Billings as our trauma registry shows that while Native Americans comprise 6.5 % of our population, they were 15 % of our admitted trauma and 17% of our Motor Vehicle trauma. Of additional concern is that it these patients are predominantly teens and young adults who constitute the future generations.

Maryland, Georgia, Louisiana, Oklahoma, District of Columbia all enacted primary seat belt laws and in subsequent years were able to show that there was no disproportionate increase in the ticketing of ethnic groups who had historically had poor observed seat belt use. Seat belt use among ethnic groups who had previously scored lower improves when primary laws are in place, so the risk of citation is actually lowered. The secondary benefit is the reduction in the risk of injury due to belt use.

Since in Montana, Native Americans are disproportionately being injured due to failure to wear restraints while in motor vehicles, and since there is evidence that seat belt use by Native Americans can be increased in states with primary seat belt laws, I believe that, coupled with continued injury prevention education, that primary seat belt laws are in the best interests of all who travel Montanas roads, regardless of their ethnic origin.